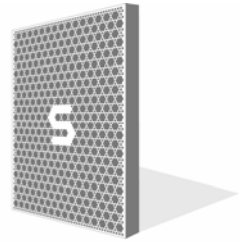


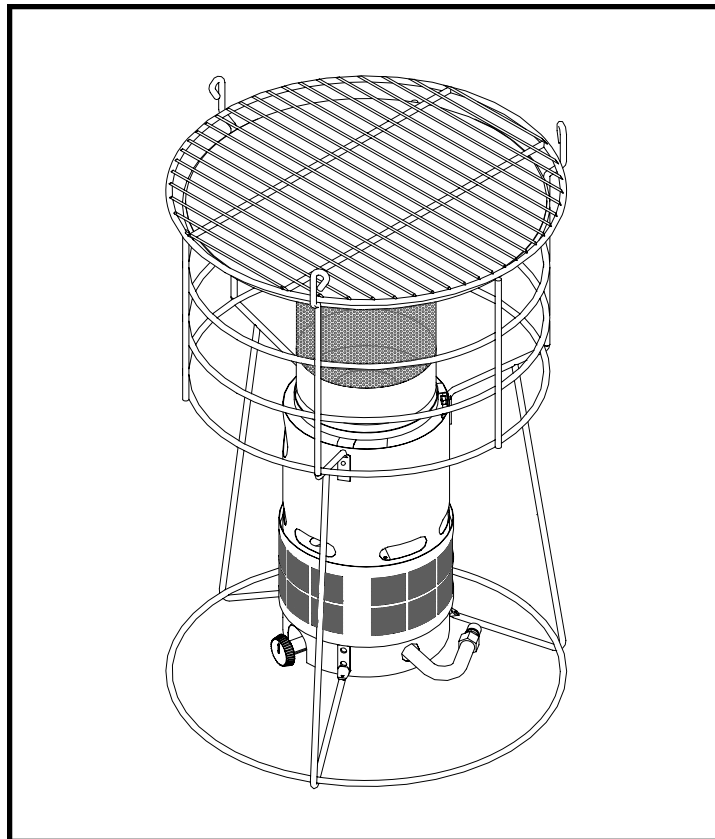
RENTAL USERS MANUAL

Schwank
infra-red gas heaters
ISO 9001:2000 REGISTERED



GAS FIRED INFRA RED CONSTRUCTION HEATER

MODEL NUMBERS: SCH-90-N / SCH-90-L
SCH-90M-N / SCH-90M-L



CAUTION: Read all instructions before use. Retain this manual for further reference.

NOTICE:

*Schwank Inc., reserves the right to make changes to equipment and specifications without obligation or notification.
All codes are current at the time of printing.*

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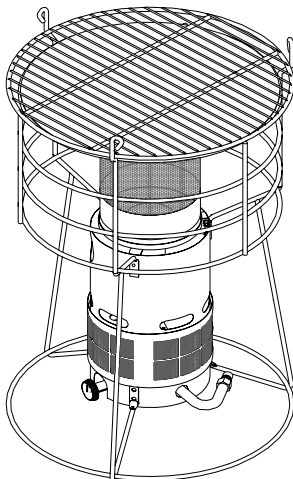
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TABLE OF CONTENTS

— INFORMATION AND SAFETY LABELS	4
1.0 INSTALLATION REQUIREMENTS	6
1.1 GENERAL INSTRUCTIONS	6
1.2 GAS SUPPLY LINE/GAS PRESSURE	6
1.3 VENTILATION REQUIREMENTS	6
1.4 CLEARANCES TO COMBUSTIBLES	6
1.5 MOUNTING INSTRUCTIONS	7
1.6 LIGHTING/SHUTDOWN INSTRUCTIONS FOR SCH-90	8
1.7 LIGHTING/SHUTDOWN INSTRUCTIONS FOR SCH-90-M	8
1.8 THERMOSTATIC CONTROL	9
2.0 MAINTENANCE	9

TECHNICAL SPECIFICATIONS



		NG	LP
<u>Input (BTU)</u>	- Normal Altitude:	90,000	87,500
	- High Altitude:	81,000	79,545
<u>Height (inches):</u>	36"	<u>Width (inches):</u>	24"
<u>Ignition controls:</u>	standing pilot	<u>Thermostat:</u>	finger touch control
<u>Tip-over switch:</u>	35°	<u>Gas inlet:</u>	NG-1/2" LP-3/8"
<u>Clearances to:</u>	24" (top)	<u>Minimum gas:</u>	6.3" (NG)
<u>Combustibles</u>	48" (side)	<u>Pressure (W.C.)</u>	11.3" (LP)

No electric power required.

Also available in 200,000 BTU

For Your Information and Safety ...

Please read the following warning labels.

WARNING

Failure to comply with the precautions and instructions provided with this heater can result in death, serious bodily injury and property loss, damage from hazards of fire explosion, burn, asphyxiation / carbon monoxide poisoning.

Only persons who can understand and follow the instructions should use this heater. Service of this heater should be performed by a qualified service person only.

If you need assistance, or heater information such as an instruction manual, labels, etc. contact your local dealer.

WARNING

FOR YOUR SAFETY

DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS:

DO NOT try to light any appliance.

DO NOT touch any electrical equipment.

DO NOT use any telephone equipment in the immediate area.

Immediately call your gas supplier or call the fire department.

WARNING

Improper assembly, adjustment, alteration, service or maintenance can cause injury, property damage, or death. For assistance or additional information, refer to this manual, or consult a qualified service agency, or the gas supplier.

WARNING

Fire, burn, inhalation, and explosion hazard. Keep solid combustibles, such as building materials, paper or cardboard, a safe distance away from the heater as recommended by the instructions. Never use the heater in spaces that do or may contain volatile or airborne combustibles, or products such as gasoline, solvents, paint thinner, dust particles or unknown chemicals.



WARNING

DO NOT use heater in living or office areas.

Approved for heating buildings or structures under construction, alteration or repair.

Use only in well ventilated areas.

Heater must be used exclusively for heating purposes.

The distance between the heating surface top to the nearest combustible must be at least 24 inches. The distance from the burner surface, in a horizontal plane, to the nearest combustible must be at least 48 inches.

The heater must not be directed towards any LP gas container within 10 feet.

The fuel supply line must not be placed near the burner heat zone.

DO NOT store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

DO NOT use this heater if any part has been under water. Call a professional gas appliance service person to inspect the heater, and to replace any part which has been under water.

Any changes to this heater or the heater's controls can be very dangerous.

Any part removed must be replaced prior to operating the heater.

Failure to follow these warnings may result in property damage, bodily injury or death.

The heater must be installed in such a way that it is not directly exposed to water spray, rain and or dripping water.



WARNING

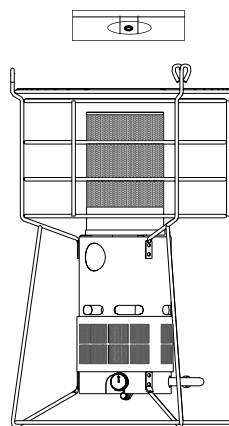
NOT FOR HOME OR RECREATIONAL VEHICLE USE

This heater is designed and approved for use as a construction heater per Canadian Standard 2.14 and Ansi Z83.7 –2000.

CHECK WITH YOUR LOCAL FIRE SAFETY AUTHORITY IF YOU HAVE ANY QUESTIONS ABOUT APPLICATIONS. Other standards govern the use of fuel gases and heat producing products in specific applications. Your local authority can advise you about these.



WARNING



**HEATER
MUST BE
LEVEL
BEFORE
OPERATING**

**NOTICE: IF PILOT DOES NOT LIGHT
THE GAS SUPPLY HOSE MAY REQUIRE PURGING**

If the heater pilot does not light within a minute, it may be due to air in the gas supply hose. Air must be purged from the hose.

According to The Canadian B149.1-00 Natural Gas and Propane Installation Code:

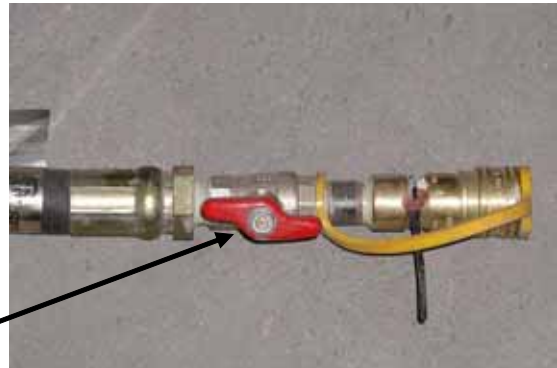
- 5.23.7 When a piping or tube system is to be **purged** to the outdoors,
- The purging line shall not terminate closer than 10 ft (3 m) from either a building or air intake;
 - The purging point shall be under the constant supervision of a competent person who shall control the purge by a quarter turn lever handle valve within 5 ft (1.5 m) of the purge point. Such a valve shall have an attached operating handle. No other valve shall be used to control or terminate the purge; and
 - Smoking shall not be permitted, and maximum precautions shall be taken to either remove or shut off any source or potential source of ignition prior to commencing the purge.

and

- 5.23.9 When all piping and tubing systems and hose have been purged, the appliance piping shall be purged and the pilot burner lighted.

A qualified person can purge the gas supply hose as follows:

- Adhere to all requirements of the B149.1-00 Natural Gas and Propane Installation Code as listed above.
- Ensure that the purging of the hose takes place at least 10 ft (3 m) from a building or air intake.
- Attach the hose to the gas supply
- Open the lever handle valve at the end of the hose that attaches to the heater
- Use a ¼" nut driver to depress the valve 'seat' located inside the gas quick disconnect on the end of the hose. (**Do not use a screw driver or other tool that can scratch/damage the surface of the quick disconnect valve 'seat'.**)
- Exert sufficient pressure to depress the valve 'seat' to allow a flow of air from the hose. When the smell of gas is apparent, release the valve seat.
- Close the lever handle valve on the gas hose. Attach the hose to the HotTot construction heater. Follow due diligence by performing all required leak tests. Follow the directions to light the pilot.



1.0 INSTALLATION REQUIREMENTS

1.1 GENERAL INSTRUCTIONS

1. Examine contents for damage or missing parts before proceeding with these instructions.
2. Installation of heaters must conform to all local codes.
3. Ensure that heater is level before operation.

1.2 GAS SUPPLY & PRESSURE INFORMATION

All piping and hose must be installed according to local code, and must be of adequate size and construction.

WARNING

1. Minimum hose length –
Canada fifteen feet (15') — USA ten feet (10')
Maximum hose length—fifty feet (50')
(3/4" inside diameter)
2. LP Gas Cylinder must be located a minimum ten feet away from heater while heater is in operation.
3. After assembly and every time the heater is attached to a new gas cylinder or gas meter, check for leaks with a soap solution or leak tester on all gas lines and connections. Failure to do so may result in property damage, bodily injury or death.
DO NOT USE AN OPEN FLAME.

If high pressure is used to check for leaks, do not subject this heater's controls to excessive pressure.

Natural gas models must have the supply line limited to 14 inches (maximum) water column.

If the line pressure will go above 14 inches water column at any time, a separate regulator must be used. The minimum supply line pressure at the inlet to the heater regulator must in no case be lower than 6.3 inches of water column.

Note: The regulator is an internal component of the heater and maintains the heater's manifold pressure; natural gas is 5.5 inches water column, and LP gas is 10.5 inches water column.

Heaters equipped for LP gas operations must have a minimum supply line pressure 11.3 inches of water column at the heater. Maximum line pressure is 1/2 PSI (14 inches water column).

1.3 VENTILATION REQUIREMENTS

It has been determined that CO₂ levels should not exceed 5000 PPM (parts per million) and CO should not exceed 35 PPM for an eight hour continuous exposure.

Combustion of gas fuel requires air. Each SCH-90 heater requires 90 sq.in. of opening for combustion air. (ex.: 9" x 10" window opening)

To maintain the carbon dioxide content in the air at or below the concentration mentioned above, the number of air changes are listed below depending on the size of the space being heated:

TABLE 1

Required room air changes per hour for each SCH-90 in operation.	
Room Volume cu.ft.	No. of air changes /
5000	5
7,500	3
10,000	2.5
15,000	1.5
20,000	1.25
25,000	1
50,000	.5

1.4 CLEARANCES TO COMBUSTIBLES

TABLE 2

MODEL	SIDE (From Radiant Surface)	TOP (From Radiant Surface)
SCH-90-N	48"	24"
SCH-90-L	48"	24"
SCH-90-M-N	48"	24"
SCH-90-M-L	48"	24"

1.5 MOUNTING INSTRUCTIONS

FIGURE 1: SUSPENDED FROM CEILING

Heater may be suspended from ceiling using chain and mounting hardware available from Schwank. When hanging from joists / beams the 24" clearance to combustibles must be maintained, and measured from the bottom underside of the joist or beam as per drawing, and NOT from the suspension anchoring point of the chain. (See Table 2 page 6)

The Schwank HOT-TOT construction heater is CSA International approved to be suspended as per these instructions and using the approved Schwank supplied suspension hardware. (optional part #JH-0910-xx)

Note: Suspending heaters is not allowed in some jurisdictions, check your local codes.

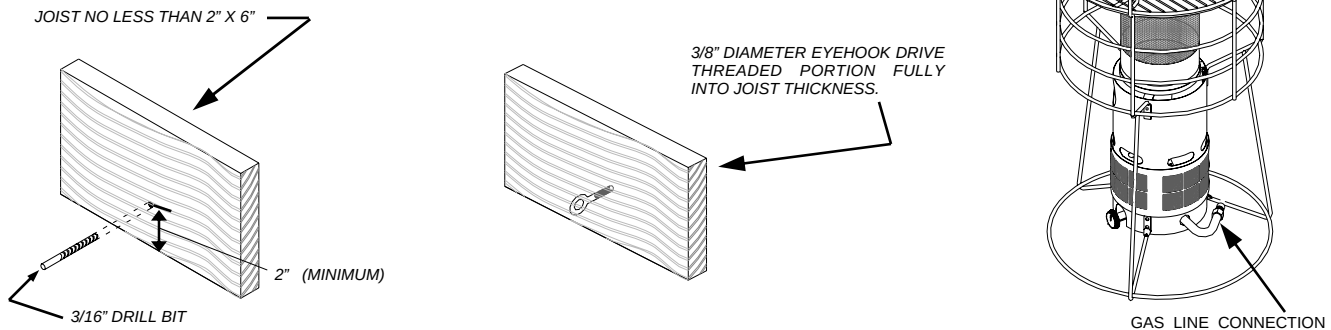
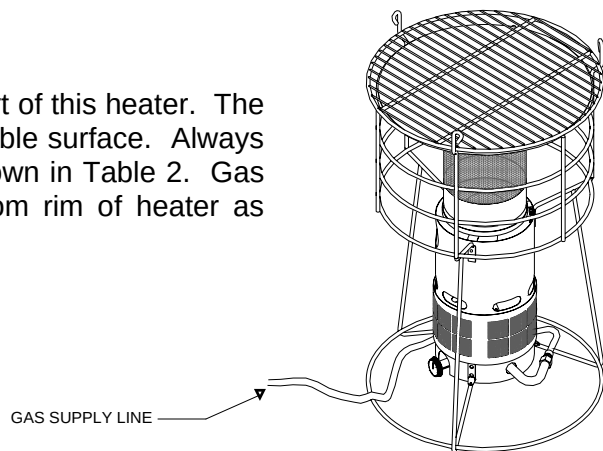


FIGURE 2: FREE STANDING FLOOR MOUNT

A steel rod, non-combustible base is an integral part of this heater. The heater may safely be placed directly on a combustible surface. Always maintain minimum distance to combustibles as shown in Table 2. Gas supply hose/piping must lay over the top of bottom rim of heater as shown here.

NOTE: Heater is equipped with a tilt safety feature. Heater will automatically shut down when it is tilted over 90° degrees



WARNING



Surface of heater will be hot to the touch. Take proper precautions. If the heater location must be changed, allow the heater to cool a full **15 minutes** before attempting to handle the heater.

CAUTION

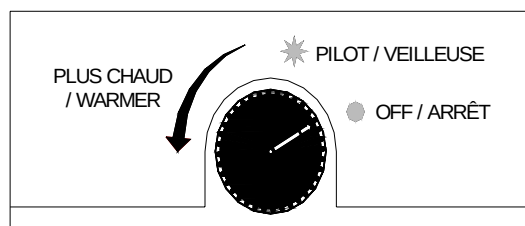


On floor mounted units, the Gas supply line must lay above the bottom rim of heater. See Figure 2.

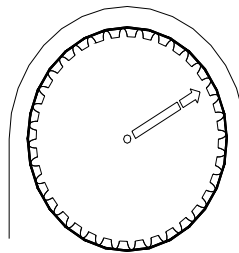
1.6 LIGHTING / SHUTDOWN INSTRUCTIONS For SCH 90 N/L

1. Pre-purge gas line prior to lighting.
2. Place knob in the OFF position, rotate knob 1 notch, or “click” counter-clockwise.  Depress and hold the control knob. Light pilot through porthole. Release knob after sixty seconds. Pilot burns, main burner is off.
3. Turn knob counter-clockwise  to ignite main burner. Adjust knob to desired heat setting.
4. If burner does not light, turn knob completely clockwise.  Leave in off position **without** pressing knob. Wait five minutes and repeat step two.
5. For complete shutdown of burner and pilot, turn knob completely clockwise,  then depress knob.

FIGURE 3



note: this is an Instructional Sticker Only



Thermostatic Control Knob

1.7 THERMOSTATIC CONTROL

Multifunctional gas control with snap acting thermostat, thermo-electric flame-failure safety device, and a manual ON/OFF function. Thermostat range is 50°F - 100°F.

MAINTENANCE

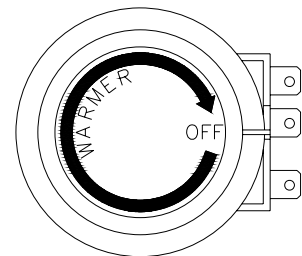
See page 9.

1.8 LIGHTING / SHUTDOWN INSTRUCTIONS - For SCH 90-M- N/L

1. Pre-purge gas line prior to lighting.
2. Turn the knob counterclockwise to PILOT position, push the knob down and hold in position. The pilot valve opens and allows gas to flow to the pilot burner.
3. While holding the knob down, light the pilot burner, continue to hold knob down until a strong flame is present, continue holding for an additional 60 seconds.
4. Release the knob. The shaft moves upward and engages the safety valve level that opens the safety valve.
5. Turn the knob counterclockwise to the ON position. On a call-for-heat the main valve opens and the main burner ignites.
6. To shut off the system, turn the knob clockwise to the OFF position. This action closes the main gas and safety valves. However the power unit must drop out before the lighting sequence can begin again. The valve drops out within three minutes.



Thermostat range is 50° F to 100° F. Turn Thermostat clockwise to increase the room temperature. Turn counter clockwise all the way to shut off, call for heat pilot is on for standby.



2.0 MAINTENANCE

This heater should be cleaned at least once annually with a dry cloth. This heater should be inspected before each use and at least once annually by a qualified service person.

The gas hose assembly shall be visually inspected prior to each use of the heater. If damage is evident it must be replaced prior to the heater being placed into operation. For replacement part information, see pages 12 & 14.

LP model heaters should use a standard LP gas cylinder. Cylinder must be located a minimum of 10 feet away from heater while heater is in operation. The cylinder must be provided with a system for vapor withdrawal. The gas must be turned off at the LP gas supply cylinder when the heater is not in use. The connection of the gas cylinder should be made with the #510 connector which tightens by turning the threads to the left. To disconnect the fitting make sure the gas is turned off, and loosen threads by turning them to the right. When heater is to be stored indoors the connection between the LP gas cylinder and the heater must be disconnected.

Keep appliance area free and clear from combustible materials, gasoline and other flammable vapors and liquids. Ensure that the flow of combustion and ventilation air is free from all obstructions.

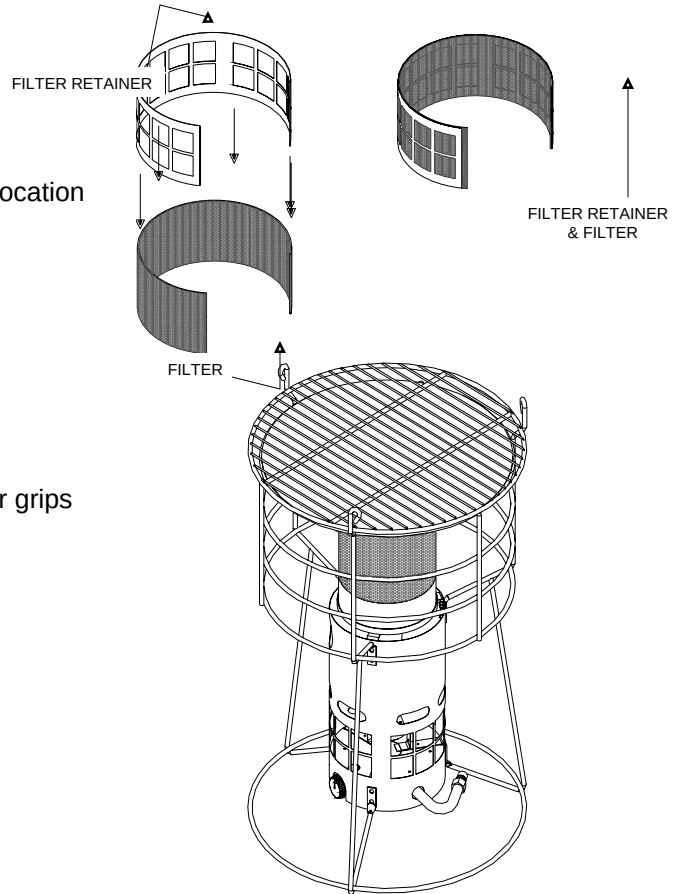
Replace filter at least:

- once every 2 weeks
- minimum once a day when sanding drywall
- each time when connecting heater at different location

* Clean burner screen with each filter change;
(see next window)

Filter replacement:

- Shut off gas supply
- Grasp filter retainer and pull together at retainer grips
- Free filter retainer
- Remove and discard filter
- Replace with a new filter
- Reinstall filter retainer, complete with filter



Clearing Burner Screen:

- Make sure gas supply is off
- Use compressed air If air is not available on the site, aerosol can is available:
- Insert air nozzle through the pilot lighting hole at side of mantle base
- Direct at flame retaining screen, and blow out any accumulated dust
- Re-open gas supply
- Re-light pilot, and continue using the construction heater as before.

